

CLAIMS:

1. A nacelle for housing a gas turbine engine having a pressurized oil system for lubricating components thereof, said nacelle comprising: an inlet lip defining a leading edge of said nacelle, said inlet lip having a conduit therein in fluid flow communication with said pressurized oil system of said gas turbine engine and defining an oil passage for circulation of pressurized engine oil therethrough; and said conduit being in heat transfer communication with an outer surface of said inlet lip.
2. The nacelle as defined in claim 1, wherein said conduit is annular.
3. The nacelle as defined in claim 1, wherein said conduit comprises a tube fixed within said inlet lip.
4. The nacelle as defined in claim 3, wherein said tube is integrally cast within said inlet lip.
5. The nacelle as defined in claim 1, wherein said inlet lip is cast and said conduit is integrally cast therewithin.
6. The nacelle as defined in claim 1, wherein said conduit comprises a circumferential inner liner fixed to an inner surface of said inlet lip, defining said oil passage between said inner surface of said inlet lip and said inner liner.

7. The nacelle as defined in claim 6, wherein said inner liner and said inlet lip are sheet metal.
8. The nacelle as defined in claim 1, wherein said inlet lip comprises reinforcing structural supports.
9. The nacelle as defined in claim 1, wherein said inlet lip comprises a plurality of annular conduits therein.
10. The nacelle as defined in claim 9, wherein said plurality of annular conduits are integrally formed within said inlet lip.
11. The nacelle as defined in claim 1, wherein the system includes a control system to regulate oil flow, including taking measures to prevent oil leakage from the oil system in the event that damage to the oil system is detected.
12. The nacelle as defined in claim 1, wherein said nacelle is operably engaged to an aircraft.
13. A power plant assembly comprising:
 - a gas turbine engine having a pressurized oil system for lubricating components thereof;
 - a nacelle housing said gas turbine engine having an inlet lip defining a leading edge of said nacelle; and
 - a conduit, defined within said inlet lip, communicating with said pressurized oil system for circulation of engine oil therethrough, said

conduit being in heat transfer communication with an outer surface of said inlet lip.

14. The power plant assembly as defined in claim 13, wherein said conduit is annular.
15. The power plant assembly as defined in claim 13, wherein said conduit comprises a tube fixed within said inlet lip.
16. The power plant assembly as defined in claim 15, wherein said tube is integrally cast within said inlet lip.
17. The power plant assembly as defined in claim 13, wherein said conduit is integrally formed within said inlet lip.
18. The power plant assembly as defined in claim 17, wherein said conduit comprises a plurality of oil passages integrally defined within said inlet lip.
19. The power plant assembly as defined in claim 17, wherein said inlet lip is cast and said conduit is integrally cast therewithin.
20. The power plant as defined in claim 13, wherein said conduit comprises a circumferential inner liner fixed to an inner surface of said inlet lip, said oil passage being defined between said inner surface of said inlet lip and said inner liner.
21. The power plant as defined in claim 20, wherein said inner liner and said inlet lip are sheet metal.

22. The power plant as defined in claim 13, wherein said inlet lip comprises reinforcing structural supports.
23. The power plant as defined in claim 13 further comprising a control system to regulate oil flow, the control system including at least one sensor for sensing foreign object damage to the oil system and at least one counter-measure apparatus operative by the control system in the event that such damage is sensed.
24. The power plant as defined in claim 13, wherein said power plant assembly is operably engaged to an aircraft.
25. A method of preventing ice build up on a nacelle inlet lip and cooling engine oil, comprising the steps of:
- providing a nacelle housing a gas turbine engine and having a conduit within an inlet lip thereof defining a circumferential oil passage therein, enabling heat transfer communication between said conduit and an outer surface of said inlet lip; and
- circulating pressurized engine oil used to lubricate said gas turbine engine through conduit;
- thereby cooling said engine oil and heating said outer surface of said inlet lip.